

Application No.: 10/811,991Docket No.: 713-584A**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18. (canceled)

19. (previously presented) A method of forming a coated film of a thermoplastic material on a region of an inner peripheral surface of a cylinder so that the coated film extends in a whole circumferential direction of said inner peripheral surface, said method comprising the step of:

providing a coating apparatus comprising:

a cylinder drive mechanism for rotating said cylinder in said circumferential direction about an axis of said cylinder;

a paste applying machine for discharging a molten paste of said thermoplastic material kept molten by heating from a distal end of a nozzle; and

a timing controller;

said paste applying machine including a gun head provided with said nozzle, a gun head moving mechanism for moving said gun head and molten paste feed equipment for feeding said molten paste to said gun head;

said timing controller being constructed in such a manner that operation timing of each of said cylinder drive mechanism, said gun head moving mechanism, and said molten paste feed equipment is determined so as to permit said cylinder to be rotated in said circumferential direction while keeping said nozzle arranged in a space in said cylinder and so as to permit said nozzle to be moved along a rotational center of said cylinder being rotated and within a range opposite to said

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region while keeping said molten paste discharged from said nozzle;

discharging the molten paste of said thermoplastic material, which is kept molten by heating, from the distal end of said nozzle;

arranging said nozzle in the space in said cylinder so that said molten paste is discharged toward the inner peripheral surface of said cylinder;

moving said nozzle along the axis of said cylinder within the range opposite to said region while rotating said cylinder in said circumferential direction and discharging said molten paste from said nozzle; and

spreading said molten paste applied to said inner peripheral surface by means of centrifugal force acting on said cylinder being rotated, to thereby wholly cover said region with said molten paste.

20. (previously presented) The method as defined in claim 19, wherein said providing step further comprising providing said molten paste feed equipment with a molten paste feed unit which includes a storage tank in which said molten paste is stored; and

a molten paste replenishing unit;

said method further comprising

feeding, using said molten paste feed unit, said molten paste to said gun head under a predetermined pressure so as to permit said molten paste to be discharged from said nozzle under said predetermined pressure; and

automatically replenishing, using said molten paste replenishing unit, said molten paste to said storage tank when the amount of said molten paste in said storage tank of said molten paste feed unit is reduced to a level lower than a predetermined level.

21. (previously presented) The method as defined in claim 20, further comprising keeping a pressure in said storage tank at a constant level, so that the pressure in said

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storage tank permits said molten paste to be fed to said gun head;

feeding said molten paste, from said molten paste replenishing unit, to said storage tank under a pressure which is higher than said pressure in said storage tank;

providing a level sensor in said storage tank of said molten paste feed unit, and detecting the level of said molten paste in said storage tank with said sensor;

further providing said storage tank with a molten paste replenishing port having a control on/off valve, and keeping said valve open during a period of time for which a control command is inputted thereto and closed during the remaining period of time; and

generating said control command during a period of time defined between after said level sensor detects that the level of said molten paste in said storage tank is at a first level or below and before said level sensor detects that the level of said molten paste in said storage tank reaches a second level higher than said first level.

22. (previously presented) The method as defined in claim 20, further comprising  
further providing said molten paste feed unit with an on/off valve in the midst of a molten paste feed pipe which connects said storage tank and said gun head; and  
opening or closing said valve in response to a command from said timing controller.